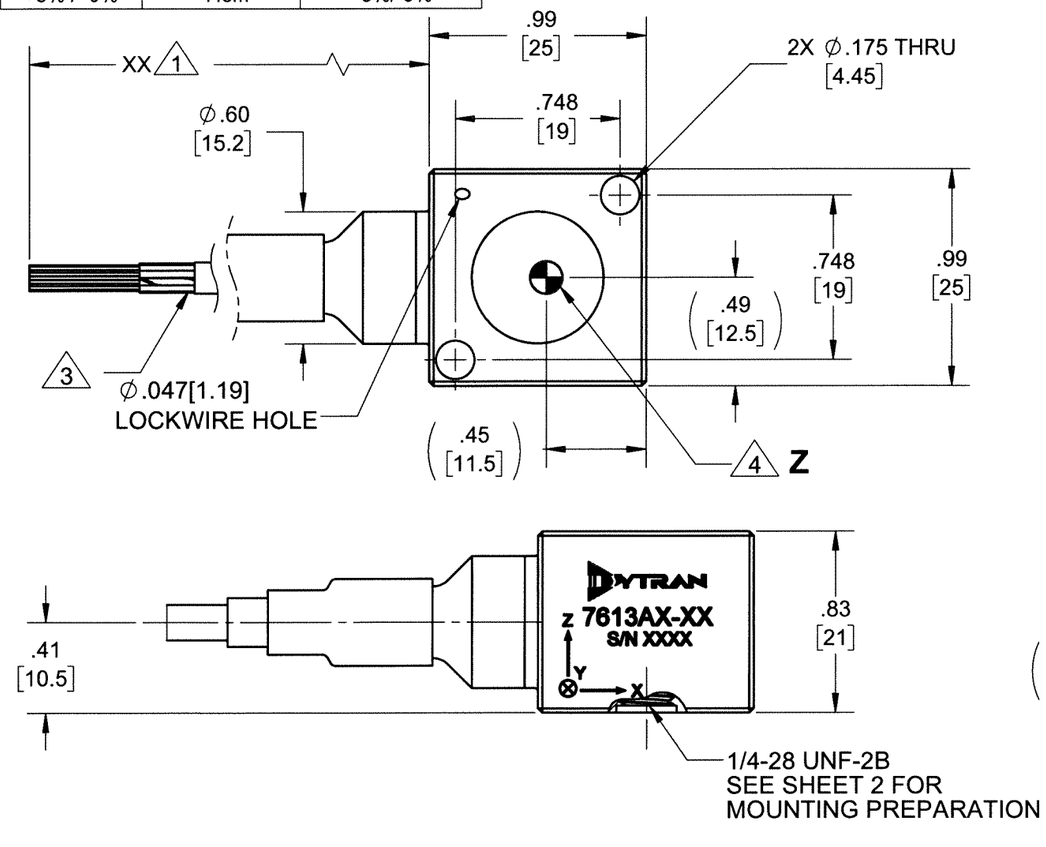
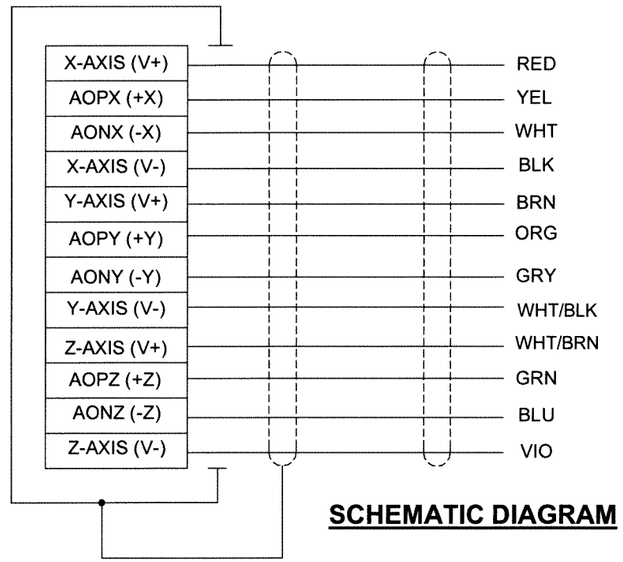
DWG NO 127-7613AX-XX SH 1 REV A

REVISIONS					
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	14343	INITIAL RELEASE. SAME AS REV X4.	KG 07/12/18	LN	AS

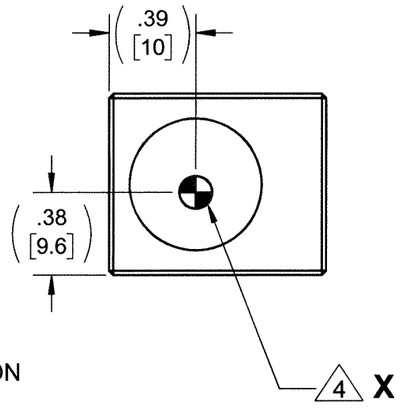
1 CABLE LENGTH TOLERANCE			
ENGLISH		[METRIC]	
≤1FT	+1/ -0 IN	≤0.3m	+25mm -0mm
>1 FT - 5 FT	+2/ -0 IN	.0.3 m-1.5m	+50mm -0mm
> 5 FT - 10 FT	+4/ -0 IN	>1.5m-3m	+100mm -0mm
>10 FT - 25FT	+6 / -0 IN	>3m-7.5m	+150mm -0mm
>25 FT	+5% / -0%	>7.5m	+5%/-0%

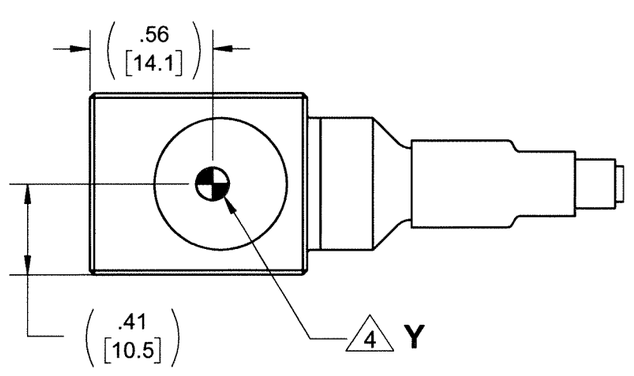
MODEL	INPUT RANGE
7613A1-XX	±2g
7613A2-XX	±5g
7613A3-XX	±10g
7613A4-XX	±25g
7613A5-XX	±50g
7613A6-XX	±100g
7613A7-XX	±200g
7613A8-XX	±400g





SCHEMATIC DIAGRAM





5. MINOR VOIDS, SCARS, SCRATCHES AND MOUNTING BLEMISH/WITNESS MARKS ON EXTERIOR SURFACES ARE ALLOWED DUE TO RESTRAINING AND HANDLING DURING TESTING, TRANSPORT OR PROCESSING. THESE APPEAR AS INDICATORS THAT DO NOT AFFECT FORM, FIT OR FUNCTION AS INTENDED BY DESIGN OR APPLICATION

4 MARKING DENOTES LOCATION OF SENSING ELEMENT'S CENTER OF MASS

3 SEE SHEET 2 TABLE FOR CABLE SPECIFICATIONS.

2. MATERIAL: TITANIUM ALLOY. WEIGHT: 45 GRAMS MAX, LESS CABLE.

1 PART NUMBER 7613AX-XX. "XX" DENOTES LENGTH IN FEET. SEE TABLE FOR LENGTH TOLERANCE

NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED:
INTERPRET DIM & TOL PER ASME Y14.5M - 1994.
REMOVE BURRS.
COUNTERSINK INTERNAL THDS 90° TO MAJOR DIA.
CHAM EXT THDS 45° TO MINOR DIA.
THD LENGTHS AND DEPTHS ARE FOR MIN FULL THDS.
DIMENSIONS APPLY AFTER FINISHING.

ALL MACHINED SURFACES.
TOTAL RUNOUT WITHIN .005.
BREAK SHARP EDGES .005 TO .010.
MACHINED FILLET RADII .005 TO .015.
WELDING SYMBOLS PER AWS A2.4.
ABBREVIATIONS PER MIL-STD-12.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES.
DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS TOLERANCES ARE:

DECIMALS .XX ±.03 .XXX ±.010
METRIC .X ±0.8 .XX ±0.25
ANGLES ±1°

APPROVALS		DATE
ORIG	LN	09/13/17
CHK	LN	8/1/18
APP	AS	8/14/18

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION USA

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

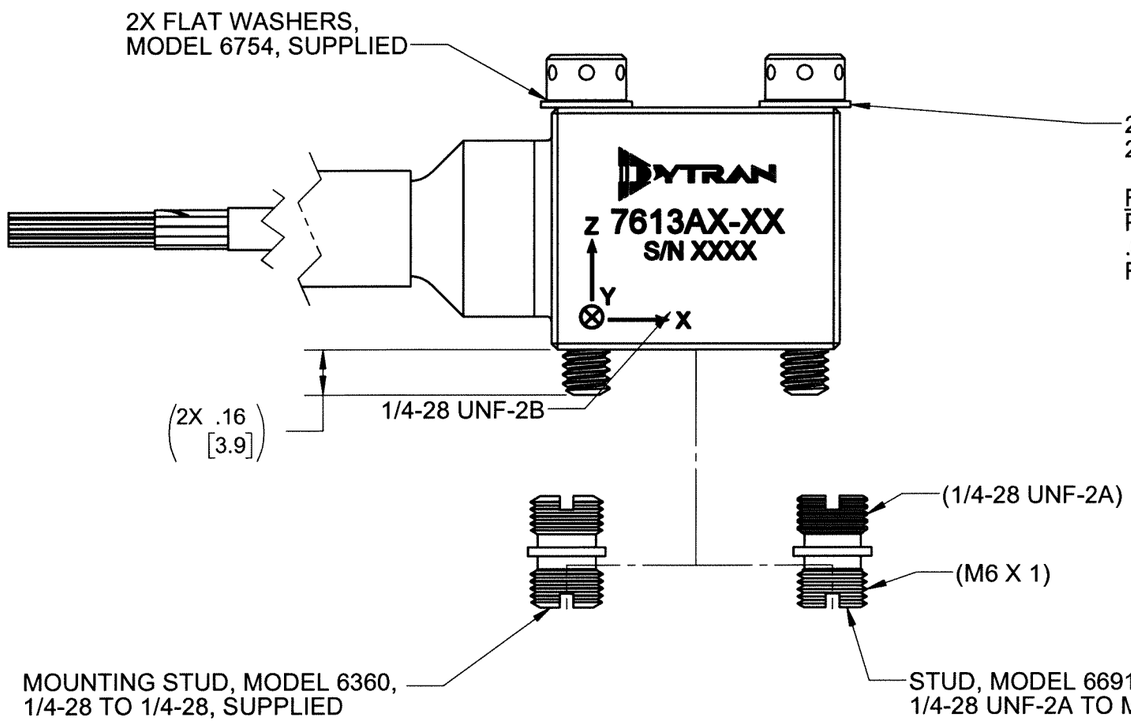
TITLE: OUTLINE/INSTALLATION DWG, TRIAXIAL DC ACCELEROMETER, 7613AX-XX SERIES

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-7613AX-XX	A

SCALE: 3:2 SHEET 1 OF 2

172-0186 REV A

3 12 CONDUCTOR CABLE	
WIRE TYPE	EXTRUDED FEP INSULATION .006 WALL THICKNESS
TEMPERATURE	200°C
VOLTAGE	600 VOLTS
WIRE DIAMETER	.032 NOMINAL
SHIELD	38 AWG SILVER PLATED COPPER BRAIDED 95% COVERAGE 7E-16C36F/30B
JACKET	EXTRUDED WHITE FEP .010 WALL THICKNESS
CABLE DIA.	∅.171, NOM
12 CONDUCTOR AWG	26-7/34 SILVER PLATED COPPER



2X MOUNTING SCREW, MODEL 69034A16 (8-32 x 1.0), SUPPLIED
2X MOUNTING SCREW, MODEL 6687A1 (M4x0.7 X 25mm), SUPPLIED

RECOMMENDED MOUNTING PREPARATION:
PREPARE FLAT MOUNTING SURFACE EQUAL TO OR BETTER THAN .001 TIR. TAP 8-32 UNRC-3B .200 MIN. (OR 2X M4 X 0.7-6g .20 [5.1] MIN.) RECOMMENDED TORQUE 10-12 LB-IN. (1.12-1.35 N-m).

RECOMMENDED MOUNTING PREPARATION: MODEL 6360
PREPARE MOUNTING SURFACE, ∅1.25 [31.2] MIN, FLAT TO .001 TIR. TAP 1/4-28 UNF-2B ↧.200 [5.1] MIN. TORQUE TO 12-15 Lb-in.

RECOMMENDED MOUNTING PREPARATION: MODEL 6691
PREPARE MOUNTING SURFACE, ∅1.25 [31.2] MIN, FLAT TO .001 TIR. TAP M6 X 1 ↧.200 [5.1] MIN. TORQUE TO 12-15 Lb-in.

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

MASTER ONLY IF IN RED

TITLE: OUTLINE/INSTALLATION DWG, TRIAXIAL DC ACCELEROMETER, 7613AX-XX SERIES

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-7613AX-XX	A

SCALE: 2:1 SHEET 2 OF 2

172-0136 REV B

Model Number 7613A3-XX	PERFORMANCE SPECIFICATION	DOC NO PS7613A3-XX
	TRIAXIAL VARIABLE CAPACITANCE ACCELEROMETER	REV B, ECN 14672, 11/30/18

- **VARIABLE CAPACITANCE TECHNOLOGY**
- **DIFFERENTIAL MODE**
- **HERMETICALLY SEALED**
- **DC RESPONSE**

		ENGLISH		SI	
PHYSICAL					
Weight, Max (Less Cable)		1.6	oz	45	grams
Integral Cable [1]		Flying leads		Flying leads	
Material		Titanium Alloy		Titanium Alloy	
Sensing Technology		MEMS		MEMS	
PERFORMANCE					
Input Range		±10	g	±98.1	m/s^2
Frequency Response,	(±5%)	0 - 600	Hz	0 - 600	Hz
	(±3dB)	0 - 1000	Hz	0 - 1000	Hz
Resonant Frequency		>3000	Hz	>3000	Hz
Sensitivity Differential, ±5% [2]		50	mV/g	5	$mV/m/s^2$
Output Noise, Differential ,Typ		18	µg rms/√ Hz	177	$µm/s^2$ /√ Hz
Non-Linearity, Max [3]		0.5	% F.S	0.5	% F.S
Cross Axis Sensitivity, Max		3	%	3	%
ENVIRONMENTAL					
Maximum Mechanical Shock (0.1 ms)		±5000	gpk	±49050	m/s^2 peak
Bias Temperature Shift ,Max [4]		111	(ppm of span)/°F	200	(ppm of span)/°C
Bias Calibration Error, Max		4	% of span	4	% of span
Operating Temperature Range		-67 to +257	°F	-55 to +125	°C
Seal		Hermetic		Hermetic	
ELECTRICAL					
Output Common Mode Voltage, Typ		2.5	VDC	2.5	VDC
Output Impedance,Nom		1225	Ω	1225	Ω
Operating Voltage		±3 to ±11	VDC	±3 to ±11	VDC
Operating Current, Max. (Each Axis)		13	mA DC	13	mA DC
Power Supply Rejection Ratio		>65	dB	>65	dB

This family also includes:

Model	Input Range (g)	Frequency Response (Hz) +/-3dB	Sensitivity Differential, ±5% (mV/g)	Max.Shock (0.1ms)	Noise Differential (µg/√Hz)
7613A1-XX	±2	0-400	250	2000	7
7613A2-XX	±5	0-500	100	2000	12
7613A4-XX	±25	0-1400	20	5000	25
7613A5-XX	±50	0-2000	10	5000	50
7613A6-XX	±100	0-2500	5	5000	100
7613A7-XX	±200	0-3000	2.5	5000	200
7613A8-XX	±400	0-4000	1.25	5000	400

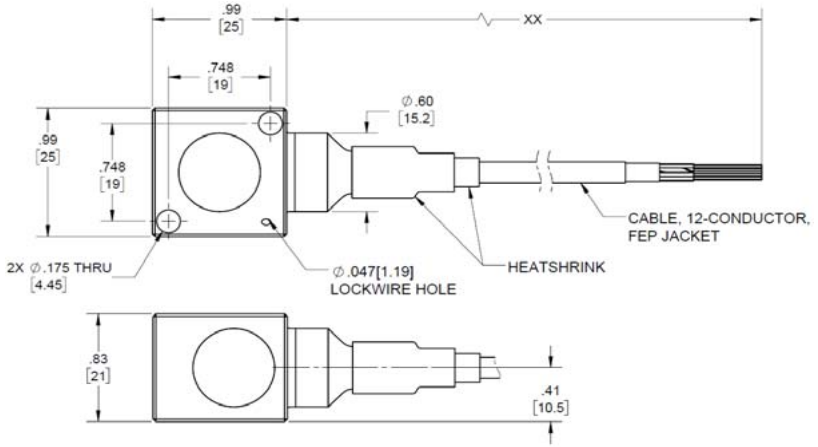
Refer to the performance specifications of the products in this family for detailed description.

Supplied Accessories:

1) Accredited calibration certificate (ISO 17025)
2) Mounting stud, Model 6360, 1/4-28 UNF-2A, Qty 1
3) Mounting stud, Model 6691, 1/4-28 UNF-2A to M6 X 1, Qty 1
4) Mounting screws, Model 69034A16, 8-32 x 1.0, Qty. 2
5) Mounting screws, Model 6687A1, M4x0.7 x 25mm, Qty. 2
6) Flat washers, Model 6754, Qty. 2

Notes:

[1] 12-conductor, 26AWG, White FEP Jacket
[2] Single ended sensitivity is half of values shown. (Ref. at 100 Hz)
[3] -90% to +90% of Full Scale.
[4] Over the rated temperature range.
[5] In the interest of constant product improvement, we reserve the right to change specifications without notice.



Units on the line drawing are in inches. Refer to 127-7613AX-XX for more information.

21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880 www.dytran.com